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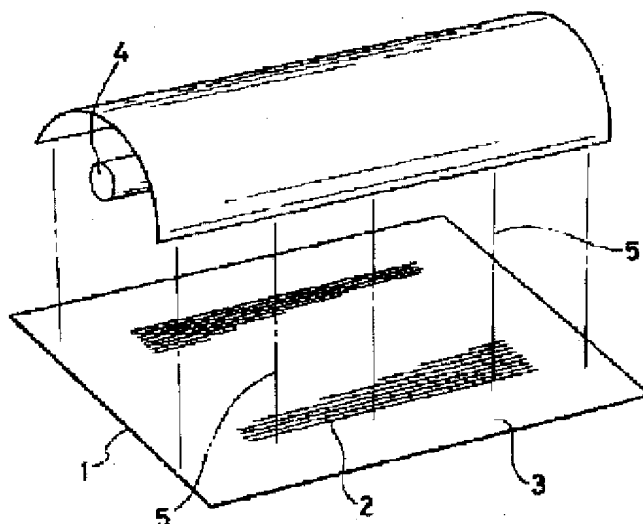
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TITLE : METHOD FOR FIXING
THERMOSETTING CONDUCTIVE INK
ONTO PAPER SUBSTRATE



ABSTRACT : PROBLEM TO BE SOLVED: To efficiently fix a thermosetting conductive ink onto a paper substrate without discoloring the substrate by applying the ink onto the substrate in a certain pattern and thermally curing the ink by the irradiation with near- infrared rays.

SOLUTION: A thermosetting conductive ink 2 is applied in a certain pattern to a paper substrate 1 by using a printing technique. The side 3 of the substrate 1 with the ink 2 applied thereto is irradiated with near-infrared rays 5 from a light source 4, a near-infrared lamp, to cure the ink 2. The surface resistance of a thermosetting conductive ink equivalent to that obtained by thermal curing by heating at 150°C for 30 min is achieved by setting the irradiation time with near-infrared rays to about 10 sec. Therefore, paper, easily discolorable by heat, can be used as a substrate. Intermittent irradiation with near-infrared rays 5 is preferable to control the reachable temperature of the ink. Preferably, the irradiation is stopped when the temperature of the ink reaches 200°C.

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